

The team for Glimpse, or “3D Web Platform,” is only 2 people, so it was rather easy to split up development work. Both my partner and I put in our fair shares of work for class assignments, documentation, etc., but the development work was split into the front- and back-end tasks. I took care of the front-end client work, while my partner was given the back-end server application to develop. Even with this division of labor, I was able to use most of the skills I mentioned in my assessment from last fall. Primarily, I developed my skills with Javascript React and Typescript, as those are the languages used in Glimpse’s client application. The User Interface class I took last semester was more theoretical than expected, so I didn’t end up with many hard skills that I could apply here, despite being the one to build all of the project’s front-end pages.

As mentioned above, I was tasked with developing Glimpse’s front-end client application. At the time of writing, all of the project’s base requirements have been fulfilled. The front-end has a total of 19 React components, the CSS stylesheets for each, a handful of GraphQL queries, and a few API/utility functions—all of which were developed by me. Each React component was written in Typescript and were built as-needed for the next feature on the to-do list. There were also a few times late in development in which I did a small amount of work on the back-end, under the idea that I could get it done quicker than if I had given it to my partner to do, plus it would already be ready for front-end requests without any extra effort. As a result, I didn’t learn many new skills, but was able to reinforce and improve on the areas I’ve been working on in my last few co-ops, as well as a personal project. One of my biggest obstacles throughout the project was the combination of something new to me, three.js, and something familiar, Typescript. Unlike normal Javascript, Typescript enforces strong typings throughout the project and causes

compiling errors when such types aren't implemented correctly. Usually, this isn't an issue for me and I prefer to work with Typescript over Javascript because of it. However, the documentation and code samples for the library we chose for working with three.js are all in Javascript, meaning I had to spend hours figuring out the typings or finding workarounds in order to create even the base version of Glimpse's 3D Viewer component. On the other hand, once I had the component working, it ran smoothly and loaded models quickly, so I'd call that a success.